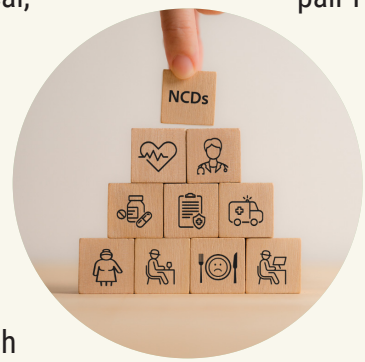
NIH Fogarty International Center

Addressing the Rise in Chronic Diseases Around the Globe

The Issue

Chronic, noncommunicable diseases (NCDs) are the leading cause of death and disability in the U.S. and globally, responsible for 70% of all deaths. Chronic diseases are often difficult to manage as they result from a range of genetic, physiological, environmental, and behavioral factors. Global collaboration is critical as unique populations from different parts of the world can yield valuable insights into the root causes of chronic diseases and provide opportunities to test new treatments. Researchers working in low-resource settings globally develop low-cost tools and technologies, many of which can be applied to low-income settings in the U.S. A strong, well-trained, and networked research workforce is essential to finding new and better ways to prevent and treat chronic diseases.



Fogarty's Response

The Fogarty International Center (FIC) collaborates closely with other NIH Institutes, Centers, and Offices (ICOs) to support research and research training on chronic diseases in global settings. These collaborations pair Fogarty's decades of experience in capacity strengthening and training with other NIH ICOs' disease-specific expertise to design and manage programs that address the health needs of low-resource populations around the world. Fogarty grantees are driving important research forward, training a new generation of researchers, and applying advances in the treatment and prevention of chronic diseases in the U.S. Fogarty also works at the intersection of chronic and infectious diseases, an area that is difficult to study in the U.S. but is important for many Americans. In addition, Fogarty leads NIH-wide global initiatives and collaborates with global research funders to maximize our impact.

By The Numbers*

- **43%** of all Fogarty grants are related to chronic diseases
- **194** unique awards co-funded with **16** other NIH Institutes
- **$20 million** invested by Fogarty
- Funding **86** U.S. universities in **36** states/DC
- Supporting research and training in **60** countries

** Data cover FY2024*

Program Successes

Former Fogarty trainees in Colombia discover clues to prevent Alzheimer's disease

Colombia is home to a large family with an inherited, early-onset form of Alzheimer's disease, providing a unique opportunity to study the development of the disease and test potential treatments. Through its Global Brain Disorders Research program, Fogarty supported the training of several Colombian scientists on neuroscience research techniques such as brain tissue analysis, advanced microscopy, and genetics. This training enabled the scientists to partner with research institutions and pharmaceutical companies in the U.S. to lead large clinical trials in Colombia with funding from the **National Institute on Aging**. These studies are evaluating different ways to stave off the decline in memory and brain function associated with Alzheimer's.

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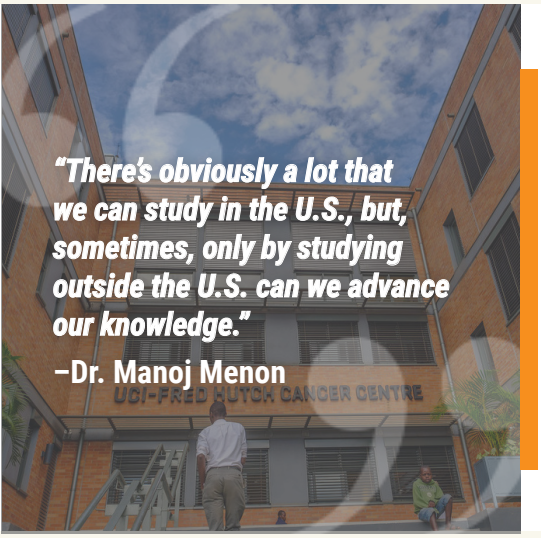
Former trainee leads heart disease research and mentors future leaders

Dr. Mark Huffman, one of Fogarty's first cardiology fellows, is now a leader in heart disease research at Washington University in St. Louis. Fogarty-supported training helped him develop research skills and build partnerships with scientists around the U.S. and globally. During his fellowship in India, he worked on improving the quality of care for patients after a heart attack, later bringing learning back to the U.S. He now co-leads a grant in Fogarty's Chronic, NCDs Across the Lifespan program training Nigerian researchers and mentoring U.S. scientists. He and his mentees are working in global settings on discoveries such as multi-drug formulations, home visiting programs, and parent-child transmission of risk factors, all of which are relevant to U.S. populations.

Early-career scientist studies connections between sleep and childhood obesity in Bangladesh

Fogarty creates unique opportunities for American scientists to develop their careers through programs such as the International Research Scientist Development Award (IRSDA). IRSDA provides early-career U.S. scientists with an opportunity to conduct research abroad, together with mentoring from experts in their field. Awardee Dr. Ayesha Sania, an epidemiologist and physician at Columbia University, is studying the link between sleep, cognitive function, and obesity in preschool children in Bangladesh. She is also conducting low-cost, high-impact research in New York and the Great Plains of the U.S., providing insights into sleep health and brain development, with relevance for children in the US and globally.



Global collaboration on breast cancer and HIV research benefits Uganda and the U.S.

Fred Hutch Cancer Research Center in Seattle and the Uganda Cancer Institute in Kampala have been collaborating for more than 20 years. A grant in Fogarty's HIV-associated NCDs Research at LMIC Institutions program, funded by Fogarty in partnership with four other NIH ICOs, benefits both institutions and the research they produce will benefit patients in both countries. The project aims to understand how HIV and its effects on the immune system influence tumors in women living with HIV and breast cancer. Principal investigator Dr. Manoj Menon from Fred Hutch initiated this project in Uganda rather than the U.S. because of the high prevalence of genetic mutations in Uganda, which enable a much wider range of studies.

Fogarty leads NIH engagement in the Global Alliance for Chronic Diseases (GACD)

A founding member of GACD in 2009, Fogarty has led NIH's involvement in the alliance since then, in partnership with 10 other NIH ICOs. GACD brings together 12 major international research funding agencies to address the increasing burden of chronic diseases around the world through implementation research and capacity strengthening. Over the past 14 years, GACD has invested more than $375 million to support 175 projects related to hypertension, diabetes, lung diseases, mental health, cancer, and prevention. With leadership from Fogarty Director Dr. Kathleen Neuzil and several NIH grantees from U.S. universities who serve on advisory boards, NIH is driving the strategic direction of GACD and ensuring that these investments benefit low-resource communities globally, including in the U.S.